INDUSTRIAL NURSE

Supplement to Industrial Medicine

Volume 1 FEBRUARY, 1942 Section 2

Contents

EDITORIAL
Doing a Better Job Where We Are.....Page 93
CAPTAIN ERNEST W. BROWN, (MC), USN
The Role of the Nurse—in Naval Defense Industry .....Page 94
MEYER BROWN, M.D., Ph.D.
The Application of Mental Hygiene—to the Problems of the Industrial Nurse.....Page 97

Doing a Better Job Where We Are

EVERYWHERE nurses in industry are wondering what more they can do to aid in the present emergency. A good many are attracted to various branches of the armed service—and rightly so, since the Army needs 10,000 additional nurses and the Navy 1,390, as stated in *Professional Nursing*, January issue. It is also estimated that 50,000 well qualified students are needed to enter schools of nursing. These are stirring times, and in addition to the patriotic motives inspired by the necessity of maximum total effort in doing quickly the terrific job that has to be done, enlistment with the fighting forces is the greatest adventure that can occur in a lifetime.

Back of the front lines are the thousands of men and women in industries who are working to supply equipment for the fighters. The accepted figure is 18 workers for every member of the armed forces, as compared with five in World War I; 18 individual personal combinations of strength and skill and brain and persistence to keep each soldier and sailor supplied with everything he needs to perform his vital part in bringing the inevitable victory.

A great many of us belong among the 18; regardless of wish, that is where our services can be best used. And there we ought to give our utmost in every possible respect, the same as is expected of every individual in the combat forces.

The one certain way in which all of us can feel that we are giving our utmost is to *do a better job where we are.*

There are numerous ways in which this can be accomplished. An outstanding instance concerns the ever-present and always extensive problem of absenteeism from work. There are about 4,000 graduate nurses in industry; and the possibilities for each one in the matter of her own personal influence on the conditions and circumstances underlying the causes which result in absenteeism are innumerable. Every nurse can do a great deal to minimize this interference with maximum production. For example, if each of the 4,000 industrial nurses would use her utmost influence in the health and safety activities of the plant in which she is employed and thereby be instrumental in saving only two days a week of lost time among all the employees, there would be 104 lost days per year to the credit of each nurse, or a total of 416,000 days for all. The employee will save wages; and the employer will save at least one and one-half times the wage; but more important than either, the saving to the great cause for which we are all enlisted would be enough time to build a very important number of guns, tanks, planes and even ships, together with their ammunition.

EVERY industrial nurse has good ideas as to how she can do a better job. All of us have suggestions to offer to our employers. But have we offered them? If not, this is the time to do it. Let's talk to that foreman who has been lax about having

Industrial Nurse

Volume 1 February, 1942 Number 2

PUBLISHED in November, February, May and August of each year as the "Industrial Nurse" Supplement to INDUSTRIAL MEDICINE.

Editor
JOANNA M. JOHNSON, R.N.,
Supervisor, Nursing Division, Employers Mutuals, Wausau, Wisconsin.

Associate Editors
WINIFRED HARDIMAN, R.N.,
Terry Steam Turbine Co., Hartford, Connecticut.
RUTH HOULTON, R.N.,
National Organization for Public Health Nursing, New York City.
FLORENCE JONES, B.S., M.S.
National Association of Manufacturers, New York.
ALMA JURISCHK, R.N.,
The Texas Company, Port Arthur, Texas.
BETHEL J. McGRATH, R.N.,
Powers Dry Goods Company, Inc., Minneapolis, Minnesota.
VICTORIA C. STRALKO, R.N.,
Foote Bros. Gear and Machine Corporation, Chicago.
RUTH MELSOME TAYLOR, R.N.,
California and Hawaiian Sugar Refining Corporation, Ltd., Crockett, California.
RUTH M. SCOTT, R.N.,
Bureau of Public Health Nursing, Indiana State Board of Health, Indianapolis, Indiana.
OLIVE WHITLOCK, R.N.,
National Institute of Health, Bethesda, Maryland.

Editorial Offices
540 North Michigan Ave., Chicago, Illinois.

Managing Editor
A. D. CLOUD, Managing Editor, INDUSTRIAL MEDICINE.

his men report promptly to the medical department. Talk to our executive committee and to our doctors about ways and means of improving the general health of the employees. Follow up the defects revealed by the physical examination. Get these employees to go to their dentists and encourage them by making appointments with the dentist and with their family physician. Follow through to see that their vision is corrected. This all takes time, but all of these things are of *vital* importance—NOW.

Let's think, too, in terms of safety and nutrition —keeping our thought about the former in terms of prevention; and about the latter in terms of resolving to utilize the resources of the many organizations and individuals who are in a position to give us material and valuable assistance. Refresher courses are available on the subject of nutrition in nearly every state; your physician, your local and state health departments will have up to date information. Current issues of our professional magazines all carry articles. It has been well said that "proper nutrition is the first line of defense."

These are only a few suggestions. Every industrial nurse can think of other, and probably better, ones. The essence of the helpfulness that is needed now, however, is to *do something* about them.

There should be no question in our minds as to the importance of the industrial nurses' contribution to the defense program—right where we are, *in industry*, we are very much a part of it.

The Role of the Nurse in Naval Defense Industry

CAPTAIN ERNEST W. BROWN, (MC), USN,
Bureau of Medicine and Surgery,
Navy Department, Washington, D. C.

TODAY one of the most important concerns of the Medical Department of the United States Navy is industrial hygiene and especially in Navy Yard practice. This is a situation of ever increasing moment in view of the present era of enormous expansion in Naval construction, unparalleled in the history of the United States. This in turn is bringing about a vast increase in the industrial force of the Navy Yards, and new problems in industrial hygiene are emerging incident to new materials and processes.

Furthermore, it should be pointed out that the policy of the Navy is to allot the building of Naval vessels on an equal basis to government and commercial yards; for instance, for every battleship constructed in a Navy Yard, another such ship is built in a private yard. It follows that the civil establishments are also undergoing rapid development, with an enormous rise in industrial personnel. These are therefore being confronted with problems of industrial hygiene similar to many of those arising in Navy Yards.

Proper emphasis should be laid upon the fact that industrial hygiene is a field which is now under rapid development in this country. This appears to be due to certain significant trends, one of the most important of which has been the recent setting up of many industrial hygiene units in state and city departments of health by funds released by the passage of the Social Security Act through the U. S. Public Health Service. Another influential factor has been the rapid and relatively colossal development of our defense industries, which has made it imperative that steps be taken to reduce the wastage of man power by illness or accident. These trends, in fact, reflect a definite renaissance of industrial hygiene as a phase of public health.

The term industrial hygiene as applied in the present discussion is used in the broad sense to mean the prevention and control of occupational accidents and occupational diseases. The objectives of industrial hygiene are: (1) the general aim to protect and promote the health, safety, and efficiency of industrial workers; and (2) the specific aim to restore to health and normal activity every ill or disabled worker, and to reduce death, illness and disability among such personnel.

There are certain activities, both general and specific which are essential for the accomplishment of these objectives. They require the combined efforts of personnel from several of the scientific professions, especially those concerned with the fields of medicine, engineering, nursing and chemistry. It is, therefore, imperative that these various professions involved clearly understand the functions of each, approach the solution of problems in industrial hygiene as a joint effort, and cooperate with each other to a common end.

The object of this paper is a brief discussion of the role of the nurse in Naval defense industry. However, it appears pertinent for purposes of orientation to approach the subject with a brief outline of the general administration of naval industry.

The Industrial Organization of Navy Yards

THE mission of a Navy Yard is primarily the construction, maintenance and repair of Naval vessels. The central administration of Navy Yards as a group is controlled by the Assistant Secretary of the Navy through the Shore Establishments Division of the Navy Department in Washington.

There are 11 navy yards, located as follows: Portsmouth, New Hampshire; Boston; New York; Philadelphia; Washington, D. C.; Norfolk, Virginia; Charleston, South Carolina; Mare Island, California; Puget Sound, Washington; Pearl Harbor, Hawaii; and Cavite, Philippine Islands, the last-named now being in the hands of the Japanese.

In addition, mention should be made of the following additional specialized plants: For the building of submarines at Portsmouth, New Hampshire, and Mare Island, California; the Naval Gun Factory in Washington, D. C., for the manufacture of high-caliber naval guns, torpedo tubes and accessories; the torpedo factories at Newport, Rhode Island, and Alexandria, Virginia; the plant at Indian Head, Maryland, for the production of Navy smokeless powder; the naval armor plate plant at Charleston, West Virginia; the naval clothing factory at Brooklyn, New York; and the aircraft factory at Philadelphia for experimental aircraft construction and repair.

The New York Navy Yard may be taken as typical of a major Navy Yard. The organization commanded by a rear admiral falls under two departments, i.e., (1) the industrial department managed by a naval captain of the engineering branch, and (2) a military department directed by a naval captain of the combatant branch. The latter department is of comparatively small extent, about 90% of the activities being industrial.

Under the industrial manager there are approximately 23 shops of different types with a force per shop varying from 40 to 5000 men. The total number of civil employees of this yard is now close to 21,000 and, it is

Presented at a Meeting of the New York Industrial Nurses' Club, New York City, January 8, 1942.

estimated will reach 40,000 in 1943. The total civil industrial personnel of the Navy, including all shore establishments, reached 227,000 on July 1, 1941, and is still rapidly mounting. It may also be of interest to mention that 49 private shipbuilding plants are under Navy contract, that is, are devoting 100% of their effort to naval construction with a total of 83,000 employees as of July 1, 1941.

Organization of the Medical Department of a Navy Yard. The medical department staff of the New York Yard consists of 14 full time medical officers, six dental officers, one nurse, 45 enlisted men and five civilian clerks. The chief activities with reference to industrial personnel may be summarized as (a) pre-employment physical examination; (b) periodic physical examinations for certain employee groups exposed to potential health hazards, such as foundrymen and spray painters; (c) physical examination of Federal employees for retirement; (d) the diagnosis, treatment and disposition of industrial injuries and occupational diseases; (e) administration of compensation cases; and (f) industrial hygiene and plant sanitation.

Industrial hygiene units: Under the medical department is organized an industrial hygiene unit made up of two medical officers with postgraduate training in industrial hygiene. This unit has cognizance of all industrial hygiene activities and plant sanitation. This is a recent innovation in naval industry established only within the past year.

The Safety Engineer

A NAVAL officer is assigned to each Navy Yard as the safety engineer. His staff conducts an investigation of all lost-time accidents with a view to fixing the cause and to prevent their recurrence. The basic features of approach to the safety problem in Navy Yards are provision of safety devices, such as mechanical guarding the control of health hazards and the safety education of workmen and their supervisors.

The adequate practice of industrial hygiene administration in navy yards, as in civil industry, is dependent upon the close correlation of the efforts of the safety engineer ad those of the industrial medical officer. The work of both is closely integrated in certain respects. In fact it is essential to obtain a grasp of the functions of both officers in order properly to visualize industrial hygiene administration.

Occupation Health Hazards in U. S. Navy Yards

IT MAY be of interest at this point to mention briefly some of the principal occupational health hazards which have been encountered in Navy Yards:

1. Dust diseases—silicosis among foundry workers and asbestosis among asbestos workers.
2. Diseases due to lead and lead compounds—found among spray lead painters, brush lead painters, lead putty workers, oxy-acetylene welders in the cutting and scrapping of ships, handlers of molten lead, handlers of lead azate used as a detonator in naval communication.
3. Diseases due to volatile organic solvents in lacquer spray painting and degreasing of machinery.
4. Disease due to x-rays and radium emanation in engineering practice.
5. Diseases due to welding—poisoning from nitrous gases, certain metallic oxides, zinc fume fever and eye injuries, principally actinic opthalmia commonly known as flash.
6. Chromate poisoning—electric platers.
7. Injuries due to ingestion of radium—painters of luminous dials of instruments.
8. Poisoning from nitro explosives—workers in high explosives such as T.N.T. and tetryl.
9. Diseases due to metallic dust—excessive pulmonary fibrosis among grinders, buffers and polishers in the use of carborundum, alundum, etc.
10. Dermatoses — among machine operators from contact with cutting and soluble oils.
11. Injuries due to excessive heat — heat cramps, heat exhaustion and heat strokes.
12. Caisson disease—diving operations.
13. Functional disturbances — (a) anoxemia from entering certain confined spaces; (b) phosgene poisoning from carbon tetrachloride used to extinguish fires in confined areas; (c) carbon monoxide poisoning, incident to oil fires in confined spaces.

The Nurse Corps of the Navy

THE nurses assigned to naval industry are not specifically trained for this purpose, but are detailed from the Navy Nurse Corps. The status of this corps may not be familiar to all, and for this reason brief reference to this group appears indicated. Graduate nurses are appointed from civil life by the Secretary of the Navy to the Navy Nurse Corps who comply with certain high standards for admission with reference to training, registration, etc. They are distributed to naval hospitals, dispensaries of shore stations and to hospital ships of the fleet. In the larger command units their duties are coordinated by chief nurses.

If the position of the nurse in the naval organization is to be properly understood, it is necessary also to consider the Hospital Corps of the Navy. This is a special branch of the enlisted men of the Navy who are trained in the fundamentals of nursing after enlistment, this instruction being carried out in Hospital Corps Training Schools. These men serve with the forces afloat where female nurses are not assigned. On shore, as in naval hospitals and dispensaries, their activities in general are directed by the Nurse Corps. The nurse, therefore, in the Navy is essentially an executive, supervising the hospital corpsmen, who in turn conduct the details of nursing technique and orderly duties. There are exceptions, however, in that the nurse takes immediate charge of a patient in serious cases.

The Nurse in Civil Industry

BEFORE discussing the status of the nurse in naval industry, it appears desirable for purposes of comparison to outline her functions in civil industry.

Industrial nursing is a field which was formerly overcrowded, but which now is constantly demanding more recruits. It is believed, however, that the story of the industrial nurse needs more publicity and should be emphasized more frequently and more widely. Increasing interest in this field has been enormously stimulated by the national defense program. Increasing recognition of the importance of the industrial nurse has been recently stressed by certain recent developments. One is the recent setting-up of a supplement to INDUSTRIAL MEDICINE, the official monthly journal of the AMERICAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS; this being entitled the "Industrial Nurse." In other words this is an Industrial Nurse's Journal and affords the nurse in industry a professional medium. Another important advance is a widespread study of nursing services in industry being conducted by the U. S. Public Health Association in conjunction with the Public Health Nursing Section of the A.P.H.A. Still another item is the promotion of a plan whereby the services of local public health nursing agencies, such as the visiting nurse associations could be made available to small industrial plants which are unable to afford the services of a full-time nurse but could properly utilize the services of such associations.

The outstanding value of the nurse to small industries demands careful consideration. Recent studies made by the U. S. Public Health Service and certain other agencies have revealed that nearly one-fourth of the industrial workers of this country have been furnished with only part-time medical services for physicians merely on call, or those engaged on a part time basis. It is a well-known fact that physicians on call and most of those who spend but one or two hours a day in an industrial plant, do not have the time to devote to a program of industrial disease prevention. Therefore, the responsibility for certain services of a preventive nature, under proper supervision to this large segment of the population is thus definitely placed on the plant nurse or on the public health nurse in the community.

The industrial nurse, therefore, has far more varied functions in general than the nurse in private practice, thus making it desirable that she have public health and industrial training and experience, in addition to her graduate hospital curriculum. It is the opinion of the speaker that industrial nursing is as highly specialized a profession as are industrial medicine, public health administration or similar professions requiring postgraduate training. Just how much will be expected from the nurse will depend in large measure on her program and on herself.

One of the main responsibilities of the nurse in the small plant is to become thoroughly familiar with the various industrial processes in the plant, the occupational hazards, and the various methods in use in their control. In the small industry the nurse can conduct a thorough sanitary survey in order to acquaint herself with the plant health hazards. She is not expected to be an engineer, chemist or physician but she can recognize and solve many of the problems. Again, the industrial nurse can make an important contribution to industrial hygiene by stimulating the practice of preemployment and periodic physical examinations of workers in industry.

The nurse can also contribute much to the plant industrial hygiene program by familiarizing herself with existing and pending legislation relating to the worker. Any rules and regulations for the control of health hazards should be known by the nurse and she should assist in the interpretation of, and compliance with, these rules and regulations.

Another factor of considerable moment is the setting-up of a system of recording and following through each case of absenteeism due to illness or injury. The nurse is the logical person to follow through each case in this category by a visit to the home of the worker. In this manner she obtains specific information on the cause of absence, and may often be in a position to aid in the prompt recovery of the patient; but at the same time be enabled to advise the family of the worker concerning other pertinent health matters.

Especial emphasis should be laid on the advantages of maintaining contact with the official industrial hygiene bureau available for consultation and assistance and with the state and local nursing societies for certain services; in other words fully to utilize community resources.

The Nurse in Naval Industry

TRAINING. As already indicated, nurses of the Navy Nurse Corps are assigned to the medical departments of naval industrial commands without specific postgraduate training in industrial hygiene. Her training must be largely obtained by experience. She must acquire a perspective peculiar to industrial medicine with the realization that sound health, both mental and physical, is an essential adjunct in accident prevention and industrial production. May I remind you in this connection that it has been well established in this country that the average worker loses approximately 10 days a year on account of illness, and that the amount of time lost from non-industrial disabilities is about 15 times as great as that lost from both industrial accidents and occupational diseases combined.

DUTIES. It must be borne in mind that naval industrial plants typified by Navy Yards represent large industrial populations, the medical department being staffed by full-time medical officers. Therefore, in extensive commercial industries, the nurse's duties are more or less specialized and under the physician's direct supervision. She is not confronted with the variety of problems met with in small civil industrial plants. While it would appear in consequence that her opportunities to contribute to a health program are somewhat limited by comparison, nevertheless there are distinct openings in Navy Yard practice despite the size of the organization, as will be indicated in a moment.

In naval industry the nurse is in charge of the surgical dressing and sterilizing rooms, supervising the technique of the hospital corpsmen who ordinarily administer first aid. This is a responsibility of the first order in that the number of surgical injuries is exceedingly high in these shipbuilding plants despite intensive safety campaigns; and that control of infection reduces time losses with their crippling effects on the man power of the plant, with resultant compensation costs to the government. This applies especially to the many minor wounds which cause no absence from duty at the time of the initial treatment, but may lead to subsequent time loss through infections.

The naval industrial nurse is also charged with the duty of instruction and training of hospital corpsmen in first-aid procedure. Owing to the fact that these men have only had limited training in view of their rapid induction into the Navy, this aspect of her service is of special importance in wartime.

The naval industrial nurse also fills another significant role in industrial relations. She is the first important member of the medical staff to see the patient. She is often in a strategic position to enlist the cooperation of both employer and employee, not only in the prevention and control of disability arising out of the occupation, but also in the promotion of general health and mental well-being. In other words, the manner of the nurse toward the patient is of considerable importance as the employer-employee relationship is affected by her bearing, her receptivity to confidences, her ability to allay fear, etc.

NON-INDUSTRIAL ILLNESS. The naval industrial nurse is not confronted with the problems of the visiting nurse in civil industry. The federal worker is allowed 30 days sick leave a year and applies to his own physician for the treatment of non-occupational illness. It is the policy, however, to render aid for non-industrial medical emergencies occurring in the plant. All employees reporting back to duty from absence due to illness from any cause must pass through the medical department before resuming work.

PRE-EMPLOYMENT MEDICAL EXAMINATIONS OF WOMEN. The naval nurse assists the medical officer in all pre-employment examinations of women.

MEDICAL RECORDS. Another highly important aspect of the nurse's duties is the keeping and tabulation of the medical records of all employees received for treatment. These data are assembled monthly presenting the number of cases from each shop with the diagnosis and cause of the injury. The value of such reports in

connection with accident claims is evident. These records are also of the greatest value in that the analysis of the data may lead to useful methods of accident control. To illustrate, the medical records for fractures of the toe were analyzed for a one-year period recently at the New York Navy Yard (INDUSTRIAL MEDICINE, July, 1941). The cases were listed by shops, by occupation and by the number of days lost from work. The prevalence of toe fractures was determined by shop and occupation; and the percentage of time lost from this injury calculated in terms of the total time lost from all injuries in the course of one year. It was concluded that the bulk of the toe injuries would have been entirely prevented if the men had worn safety shoes, that is, footwear with a metal plate under the toe cap. It was therefore recommended that the use of safety shoes be made compulsory for all employees, or in lieu of that, to require occupational groups in which toe fractures were especially prevalent to utilize this safeguard. As a result, an intensive educational campaign on the wearing of safety shoes was begun and a definite reduction in toe injuries followed.

A similar study was conducted on the subject of head injuries and the protective value of metal head helmets (INDUSTRIAL MEDICINE, January, 1942). It was conclusively shown that a high proportion of such accidents could have been prevented by the wearing of metal helmets. Action was taken to supply certain trades with this equipment.

OCCUPATIONAL DISEASES. While the naval industrial nurse has no direct responsibility in occupational disease control, she can extend her sphere of usefulness by an intelligent interest in the common health hazards of a shipbuilding or other plant and the possible symptoms resulting from exposure. Let us consider a shop in which women may be exposed to benzol fumes. If 10 or 20 girls came in complaining of headache, bleeding gums or menstrual irregularity the suspicion of benzol poisoning would be raised. Men reporting with severe skin eruptions on the hands would involve the question of occupational origin if they had been handling cutting oils. Severe headache with nausea and vomiting might be correlated with exposure to volatile solvents in spray lacquer painting.

In closing may I emphasize the fact that men engaged in government defense industry are as important to National Defense as men in uniform, now that we are engaged in a major war. In the first World War five men in defense industries were estimated as required to maintain one man on the fighting line. In this war the ratio is close to 15 to 1. Accent, therefore, hardly needs to be placed on the fact that the safeguarding of industrial man power is vital for victory. The industrial nurse is one of the most important links in the chain of this crucial task of preserving the health of our industrial forces.

[The views and opinions expressed in this paper are those of the author and are not to be construed as necessarily reflecting the policies of the Navy Department.]

The Application of Mental Hygiene

— To the Problems of the Industrial Nurse —

MEYER BROWN, M.D., PH.D.,
Consultant to the Zurich General Accident & Liability Insurance Company, Limited

TO A group of industrial nurses it is hardly necessary for me to stress the importance of mental disorders and emotional maladjustments in everyday life. Let it suffice merely to be reminded of a fact which is of overwhelming significance. That fact is that there are more people in the United States occupying hospital beds because of nervous or mental diseases than because of all other diseases put together. For each person occupying a hospital bed because of some nervous disorder there are probably well over a dozen who are in need of medical care for similar disturbances but who are not yet ill enough to be in a hospital. Certainly, those who are interested in the health of the American workingman cannot overlook disorders of mental or emotional nature.

Industrial nurses, of course, are not concerned in their work with men or women who are already confined within an institution for the insane. But we shouldn't forget that everyone of these thousands of persons were working in shops, in offices, in factories or in their own homes before it was necessary to put them into asylums. The industrial nurse may have worked with them and for them before they had a serious mental disorder. She may have had the opportunity to see it coming; she might even have been in a position to prevent it by directing the patient to proper sources of advice and treatment. And what is of vital importance to her employer is that she may have been in a position to detect a serious mental disorder in a man or woman before that patient wasted valuable time or material or before he became involved in a dangerous and costly accident.

The patient who is finally sent to an institution for the insane is a sick man, not a man in disgrace. Too many people disregard this simple fact and are thereby extremely unfair in their attitude toward the person who is unfortunate enough to develop a mental disorder. His queer actions and ideas are signs of a disease and not the result of wilful mischievousness on his part. A severe attack of heart disease is as much a disease as any mental disturbance and usually the patient is no more blameworthy in either case. Mental disorders require medical care in exactly the same way that any disorder of the heart or other organs does. Patients recover from physical ailments, sometimes not completely. The same thing is true of mental disturbances. These ideas may appear self-evident to you but it is regrettable that many people both inside and outside of the medical profession do not fully appreciate the meaning of such attitudes as are reasonable. All too often the unfortunate patient who shows evidences of mental disease is looked upon as a peculiar individual, as a person with whom we must argue or whom we must punish instead of being regarded as a sick man who needs competent medical attention. As a result that attention may be withheld so long that it becomes less effective than if it were administered early. A mental disorder is hushed up, excused, ignored or neglected, but valuable medical treatment is often postponed until its task is much more difficult. Not only do we deny a sick man appropriate treatment when we adopt a medieval attitude toward mental sickness but we are also guilty of unnecessary cruelty. Such an attitude leads us to expect efficient work from a man who is but half or one third of a man; this is like expecting a man with a broken arm to drive a truck as well as a healthy man. Let us be on the alert for these unfortunates; let us explain the need for medical care to them, to their family or to their employer and let us help to see that good medical care is provided so that a valuable worker may be restored to usefulness. An employee whose return to health is assisted by an enlightened attitude from his place of work is a grateful worker and hence a willing one.

*From the Department of Nervous and Mental Diseases, Northwestern University Medical School. Read before the Chicago Industrial Nurses' Association January 8, 1942.

LEST we lost sight of the more important aspects of industrial psychiatry we may for the moment forget the unfortunate patients who are already too ill to remain in the outside world. The nurse's duty to them as well as to her employer will be served when she detects such patients and helps them obtain competent medical advice. Far more important to the industrial nurse are the much larger number of workers who show mental and emotional disorders which are not severe enough to incapacitate the patient but which do prevent him from enjoying sound health and unimpaired working efficiency. Among these lesser neuropsychiatric cases we may conveniently differentiate three kinds of problems. First there is the patient who has a nervous or mental disorder which is not severe enough to require hospital care but which can become so if it remains untreated and makes progress. These cases are analogous to those of many patients with arteriosclerotic heart disease. They are able to work at their jobs, but within certain limitations and must receive appropriate medical supervision. The doctor who is familiar with such disorders can often produce a marked improvement in these patients and is often in a position to prevent serious consequences. We may illustrate this type of case in a hypothetical man whom we shall call Tom Jones.

Tom is 35 years old, married, has two healthy children and enjoys a happy home life. He has been with the company for 14 years and during that time has earned the respect of his employers and fellow workers. He is kind and courteous. His intelligence is good and his temperament is stable. His thoroughness and reliability on the job and his skill have brought him steady promotion. Now he is doing vital defense work which demands training and precision. For no apparent reason a change comes over our hypothetical patient. Whereas he had previously enjoyed excellent health and good spirits he now begins to worry about himself excessively. If you take the time to question him and show enough interest in him he will tell you that he has tired, weak spells, that his appetite is poor and that he has peculiar headaches, numb feelings in the arms, gas in the stomach or palpitation. If this patient feels that you really wish to help him he will tell you more about himself. He will tell you that his outlook on life has changed and that this has happened for no good reason. He will explain that he is not as cheerful as he was, that now he is in the doldrums, that he is pessimistic and that he has lost interest in his friends, in the current news and even in his children. No, there is nothing wrong at home between our hypothetical patient and his wife. She is a sympathetic and excellent companion. At his work there is also a marked change in the patient. His good naturedness is gone; he is irritable, curt and not as sociable with his fellow workers as he was previously. He does less work than he used to and he makes more mistakes in a day than he had previously made in a month. It is obvious that Tom is not himself.

This picture is not overdrawn. As a matter of fact many important symptoms are omitted. The condition which our hypothetical patient has is a very common one. It is not severe enough to affect his mental powers or require committment to a hospital for the insane but it certainly is important enough to demand medical attention. Tom has a mild attack of a mental disorder known as manic-depressive psychosis. If his illness becomes worse he may require hospital care, but for the present he needs competent medical attention outside of an institution. Treatment given early in this case may cause so much improvement to occur that he need not lose a day's work. He will finally recover completely and resume his work at his former level of efficiency. The industrial nurse who has helped this man has indeed proved valuable to him, to the company for which he works and even to the nation. How did she help him? She helped by taking an interest in him, by understanding the situation, by advice which brought competent medical help and by collaboration in the administration of that medical treatment.

A SECOND type of neuropsychiatric problem seen in industry is more common than the first one. I refer to the patient with a minor disorder of the nervous system which rarely becomes severe enough to require institutional care and which can usually be relieved wholly or in part by prompt and suitable medical care. If neglected these patients do not, as a rule, progress to a stage in which they cannot work, but they are handicapped by their illness nevertheless, and are unable to carry on at their tasks with maximum efficiency. We may compare such cases to those of employees whose eyesight is poor because correction with eyeglasses has not been prescribed. These people will not become blind but they can do a much better job if proper glasses are furnished them. The patient with frequent and severe migraine headaches is in this category. If proper treatment eradicates the headache of a migrainous patient he can obviously do better work and is grateful for the relief.

Here is another situation belonging in this second group. No doubt most nurses have encountered it in their own plant because it is far from rare. Again she may be dealing with a competent worker who is regarded as valuable by his employer. This patient will start to make frequent calls to the industrial nurse or medical department because of headaches, palpitation, dizzy spells, numbness of the face, pains in the abdomen or many other so-called functional complaints. Here too there is an impairment in the patient's work and a change in his relations with his fellow workers so that he is irritable and more difficult to get along with. A sympathetic ear in this instance will also elicit many interesting and significant things. The patient complains of always being upset and on edge, as he puts it. He is tired all the time, he can't sleep as well as he did previously, and he finds it difficult to concentrate on his work. With little difficulty it is learned that the patient has been having all these troubles since his wife became ill. It was necessary to operate on her. She was in great danger for several weeks and now is recovering very slowly. Our hypothetical patient is burdened with the housework, with the care of his children and worst of all with debts. His savings are gone and he is too proud to borrow. This man needs help badly. He needs encouragement and understanding. He needs a visiting nurse or other help at home; he needs financial assistance and he also needs competent medical advice for himself, too. With these he can be restored to health; without them he is a burden in his place of work instead of a valued helper. This hypothetical patient had a psychoneurosis, a nervous disorder that occurs when people are subjected to too much work, to too much aggravation or to too much fear. In other words, a situation which is very trying on a person will if continued long enough produce a psychoneurosis.

WE MUST not forget the third group of persons the industrial nurse will see who show some emotional or mental maladjustment. They are by far the most numerous group because they are the so-called normal people. These workers do not have any active or progressive neuropsychiatric disorder but, nevertheless,

they present many different kinds of psychologic problems, some of which are temporary. Industrial nurses who have equipped themselves with a good background in psychology and an understanding of emotional misfits can be of particular assistance to these employees.

A large percentage of the persons falling into this third category suffer a temporary emotional upheaval because of some acute upsetting circumstance which may have occurred either at home, or at work or even at play. The more serious the upsetting circumstance and the longer it continues to persist the more certain is its victim to develop a psychoneurosis. For example, a man whose child is involved in an automobile accident is obviously apt to become emotionally disturbed. He is so fearful over the outcome of the injury and worried as to his financial ability to cope with the situation that, as he would say, he is completely upset. We are not surprised to find him agitated, restless, unable to think clearly, and we realize that he is useless for a task that requires cool and precise action. If his child continues to be ill he may become so thoroughly disturbed by fear and other unpleasant emotions that he will develop a psychoneurosis. If she recovers promptly he may be expected to return to a normal state very shortly. We must not lose sight of the much more common lesser unpleasant experiences which also produce emotional upsets in our workers, though these episodes may be temporary in character. Time and time again accident records will show that a tragedy in a shop or on a delivery truck was due in a large part to the distracted condition of the worker, not to the absence of a guard rail or to a failing signal light. We are learning every day that there is more to efficiency in work than good lighting or clean surroundings, important as these are, and that guard rails or other protective devices will not prevent all accidents. We are just beginning to study the attitude of the worker toward his job and his fitness for it rather than the environment he is placed in. In other words, what a worker is thinking and feeling are just as important as the environment of the working place if he is to turn out good work safely.

A man who is extremely angry, horribly afraid or sleepless with worry cannot work well. He doesn't need a doctor all the time. He may need an understanding listener or a calming word or two. Of course one can't expect an industrial nurse to talk to everyone as he reports to work, but she can keep her eyes and ears on the alert for acute emotional upheavals and perhaps prevent their tragic possibilities.

Another example of the so-called normal worker who falls into this third category is the chronic complainer. He is often a difficult problem because he just doesn't get along with anyone and by his attitude may actually interfere with the work of others. This man may be sufficiently talented in his work that he becomes a necessary nuisance. Anyone with enough interest and experience in handling this type of person may find that some change in the arrangement of his working conditions will produce unexpectedly good results. His home conditions may have embittered him. His financial affairs may be contributing toward his sour outlook on life or it may simply be the fact that his supervisor is taking credit away from him in an unfair manner. Or, the trouble may be that he works in a location where too many eyes are watching him. On the other hand, it may be found that it is simply impossible to make suitable arrangements on the job he is doing. In that case removing such a worker to another plant or to another type of work may be the solution. Until proper correction is applied to this type of situation, the offending worker is a thorn in everyone's side — in the side of the foreman, the manager, his fellow workers, the plant doctor and even the plant nurse. If she is interested and well informed she may discover the facts in the case and refer it to proper authorities for correction.

THERE are many more problems of psychologic nature which occur almost daily among the "normal" workers of any large industrial organization. There is the shy retiring type of employee, the high strung worker, the employee who drinks too much, the irresponsible and dishonest worker, and so on. All of these may act as impediments in industrial production instead of being an asset. The industrial nurse is particularly apt to come in contact with these problem workers for real or fancied complaints. Usually, however these problems are ignored unless they are too destructive of company time or materials. In alert and progressive organizations a good foreman, a personnel manager, a consultant psychiatrist or a well informed and conscientious nurse may cope with these minor difficulties. As a matter of fact, the industrial nurse is in an enviable position for achieving real accomplishments in this direction. She has the confidence of the workers and also their respect. She knows the employees well and is familiar with their problems in the plant. She can interpret new ideas to the worker and point out the value of expert advice. To the managerial force she is also a valuable ally in the battle for smooth production and is often a potent force in developing what we call good morale. Progressive management recognizes this fact and accords the industrial nurse respectful cooperation.

YOU may rightfully ask at this point what the industrial nurse can do about mental hygiene in industry. First and foremost she must widen her knowledge of psychologic and psychiatric matters by reading, lectures and observation. Ignorance and bigotry go side by side; knowledge brings tolerance, understanding and, best of all, the ability to serve. A nurse who is familiar with the simple elements of mental hygiene can appraise a case with neuropsychiatric implications more intelligently. She recognizes whether or not a case is serious and knows if she can handle it herself or if it is her duty to seek more skilled aid. She can educate others, among them her employers. A nurse who wishes to render effective aid to workers with mental or emotional difficulties must also cultivate a genuine interest in the welfare of her patients. The problems of the workers both inside and outside of the plant should be the object of her sympathetic interest and understanding. She needn't be an inquisitive busybody. Some workers resent a stranger's interest in their personal affairs, but others discuss them with almost anybody. Every worker, however, will think more of a nurse if he feels that she is concerned with his complaints and has a genuine interest in helping him. All good nurses administer psychiatric treatment when they dress a simple wound by virtue of the fact that they have reassured the injured worker. Merely by saying "Don't worry John this will heal up in no time," she has helped his mental state as much as the application of the dressing has helped the wound. When she asks Bill how his wife and children are getting along she is building good will and confidence in the mind of Bill. It is not necessary to become maternal toward employees but it can truly be said that a sincere interest in the well being of workers both inside and outside of the working place is often the distinguishing mark of a respected and valuable industrial nurse.

IN conclusion there are one or two precautions worth noting when we speak of industrial psychiatry to the industrial nurse. Force of circumstances often makes her dependent on her own professional abilities to such an extent that she may over-reach herself. Despite excellent training in mental hygiene industrial nurses should realize that they have limitations. It is their duty to recognize a potentially dangerous situation and to make it known to proper persons, but they shoulder too great a responsibility when they manage cases that require psychiatric supervision. It must be admitted, however, that indifference toward mental and emotional problems in workers is a greater problem than misguided management. With lay persons who are not well acquainted with the aims and problems of mental hygiene it is often advisable to avoid the use of such words as mental disorder, psychiatrist, psychologist or emotional maladjustment. If the prospective patient or even the employers are not familiar with the exact meaning of these words they are apt to misinterpret your efforts. Too often the words mental disorder imply a raving maniac in a padded cell, while a psychiatrist is thought to be a sinister man who is impossible to understand and who is always delving into your most painful and private thoughts. Words like nervousness, not getting along, emotional instability and nerve specialist are less terrifying and easier to understand. Unless a worker or employer knows that psychiatrists are regular physicians with special training in the treatment of all kinds of nervous disorders and that a very small proportion of his patients are insane, he will resent the implication that a psychiatrist is needed for his problem. It is the opportunity of the industrial nurse to enlighten her patient on this point. His respect for her and his belief that she means him well will go a long way toward lifting the bugaboo that he is a "mental case."

It has been a privilege to bring these few remarks to an audience of industrial nurses. As one of your number has stated, you are in the front line trenches in the fight to extend the benefits of scientific medicine to industry. An understanding and proper utilization of the concepts of mental hygiene make excellent ammunition in that fight.

Emotional Meaning

A TUBERCULOSIS SERVICE is one which illustrates very clearly the emotional meaning of illness. If the diagnosis serves as an escape, the patient may accept a recommendation for sanatorium care very willingly. Since that is what may be most needed the accomplishment of this first step is usually considered helpful. Yet, if the motivating force of the patient's desire to get well is lacking, it may be difficult to arouse, and the benefits of sanatorium care may be less effective until this occurs. If the diagnosis means essentially a frustration, an interference with plans, the patient may react in many different ways. He may (and the big majority do) accept his problem and meet it to the best of his ability. Or, he may be very resentful, blaming his employer, his parents, his wife, the Deity, and society in general. Life has hurt him and he must hurt back. Or he may react by denying the existence of any trouble. He may say and believe that he feels better, that he can do more things, that his activities are increasing. . . . The function of the nurse (and the doctor) is to interpret the health needs and to help the patient consider them.

—(DOROTHY I. ROBERTS, R.N., *Pub. Health Nursing*, December, 1941.)

Nurse Courses

TWO special courses designed to meet emergency needs in safety training for industrial nurses will be conducted during the spring term beginning February 9 by the national Center for Safety Education at New York University, it has been announced by DR. HERBERT J. STACK, director of the Center. The course on "Industrial Hygiene and Accident Prevention for Nurses" will present methods and procedures whereby the industrial nurse can aid in improving the health and insuring the safety of workers. Specialists in various phases of industrial health and safety will give instruction in this course, which will meet for 15 weekly sessions Mondays from 7 to 9 P.M. beginning February 9. The course fee will be $10. The "First Aid Instructors' Course" is intended for leadership training and certification of industrial nurses and health workers. Professional instruction will be provided by the New York chapter of the American Red Cross in two sections each meeting for 15 weekly sessions beginning Tuesday and Wednesday, February 10 and 11, from 7 to 9 P.M. Red Cross certification is not a prerequisite for this course, for which there will be no fee. First conducted last fall, the course in "Industrial Hygiene and Accident Prevention for Nurses" has been revised to stress instruction in new needs and problems of industrial nurses that have arisen from the present emergency. Among topics to receive emphasis are accident prevention through the use of proper safety measures and an effective educational program; new procedures in first aid; emotional first aid and how morale can be sustained through the health and safety program; and nutrition and its relation to workers' health.

Health Service for Small Plants

AFTER a year's study, a program has been approved by the department of preventive medicine of Yale University School of Medicine and the New Haven Medical Association for servicing small industrial plants which have no medical service, except one of emergency. Wherever possible, the plan provides for participation by the family physician, especially in pre-employment and periodic examinations. The consultative service is to complement rather than supplement the service available to industry by the bureau of industrial hygiene of the state department of health, and facilities are to be used for clinical teaching by the department of preventive medicine of the university. All research data accumulated during the service will be used in an effort to decrease the incidence of disease. The project will be reviewed after a trial period of two years to consider its continuance.

Nurse Conference

THE Fourth Joint Conference of the New England Industrial Nurses' Association, the New York Industrial Nurses' Club, the New Jersey Industrial Nurses' Association, the Philadelphia Industrial Nurses' Association and the Detroit Industrial Nurses' Club is to be held in Philadelphia on Saturday, April 18, 1942. MRS. MARION C. BRITTINGHAM, R.N., The Cuneo Eastern Press, Philadelphia, is president of the Philadelphia Industrial Nurses' Association, the hostess club, and will be delighted to answer any inquiries from industrial nurses interested in attending the convention.

New Survey

TO DATE, the medical service facilities of 13 plants in the Philadelphia, Pennsylvania, area have been surveyed by DR. W. J. MCCONNELL, consultant to the Division of Industrial Hygiene, National Institute of Health, who is directing the nationwide study of medical services in industry. The study is to cover approximately 800 to 1,000 plants representing all types of industries and three size classifications. After completing his work in Pennsylvania, DR. MCCONNELL will survey New Jersey industries, and, beginning in March, he will enlist the assistance of the physicians in the various state industrial hygiene bureaus in surveying plants in their respective states.

Routine for Syphilis

AMERICAN SOCIAL HYGIENE ASSOCIATION estimates that well over half the largest industrial plants in the country include a routine blood test for syphilis in employee physical examinations.

BURNS...

"The **FOILLE** *Routine is Extremely Simple"**

"Since the agent is mildly antiseptic, an ascptic soap and water debridement under morphine sedation is sufficient. Within a few minutes of application (either by spray or soft camel's hair brush) there is marked relief of pain, due to the action of the benzocaine.

"A preliminary dressing of two or three thicknesses of sterile, Foille-saturated gauze is held in place by a few turns of clean bandage, and this is all kept constantly moistened with the agent under a heated cradle for 48 to 72 hours.

"At the end of this time the dressings and any accumulated debris and crusts are gently soaked off in a tub of warm tap water. Thereafter the lesions are kept covered with the Foille, but without the gauze dressings. Gentle mechanical cleansing is carried out in the warm bath every day or two, as already described."

NOTE: Where the cradle method is not practicable, and it is necessary to continue dressings, a two-thickness gauze may be used—maintained in a saturated condition by frequent alternating applications of warm saline and Foille. This accomplishes a cleaning up of the coagulated exudate and assists in speed of epithelization and granulation.

". . . Foille appears to be superior to the tanning method in the local treatment of burns, and also to have definite advantages over the cod-liver oil therapy."

Write for literature and clinical sample of Foille.

INDUSTRIAL SURGEONS!

Attention is called to our new Foille Disaster Package, a five gallon demijohn, which, it is urged, should be carried in reserve for emergency use to meet major explosions or disasters.

Be prepared with this specially-priced container.

MINE SAFETY APPLIANCES COMPANY, PITTSBURGH

EXCLUSIVE DISTRIBUTORS TO THE FIRST AID AND INDUSTRIAL FIELD

CARBISULPHOIL COMPANY

DALLAS, TEXAS, U. S. A.

CHICAGO • NEW YORK • LOS ANGELES • BIRMINGHAM

*Modern Burn Treatment: Hamilton, J. E., Indus. Med., 10:427-432 (Oct.) 1941.

SOCIAL SCIENCES

"BLOW"

Besides all the well-known discomforts usually associated with a cold in the nose, there is one to which many pay little attention . . . irritation of the nose from continued blowing and wiping. How often do you hear, "My nose is so sore I can't wipe it"?

NUPERCAINAL, "Ciba" quickly and efficiently alleviates the soreness of the nasal outlet produced by the irritating discharge and wiping. Its use makes a cold somewhat less uncomfortable.

NUPERCAINAL* promptly relieves pruritus. A trial is worthwhile.

ONE OUNCE TUBES
ONE POUND JARS

*Trade Mark Reg. U. S. Pat. Off. Word "Nupercainal" Identifies the product as alphabutyloxycinchoninic acid diethylethylene-diamide in lanolin and petrolatum, an ointment of Ciba's manufacture.

REQUESTS FOR SAMPLE TUBE AND LITERATURE PROMPTLY FILLED

NUPERCAINAL, "Ciba"

C·I·B·A

CIBA PHARMACEUTICAL PRODUCTS, INC., SUMMIT, NEW JERSEY